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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,131	01/30/2006	Nelson Luiz Ferreira Levy	APA-PT007	1349

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VOLPE AND KOENIG, P.C.
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PHILADELPHIA, PA 19103

EXAMINER

WHITE, EVERETT NMN

ART UNIT	PAPER NUMBER
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1623

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09/26/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/538,131	Applicant(s) LEVY ET AL.	
	Examiner EVERETT WHITE	Art Unit 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 3-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 2 and 18-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-21 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/6/2005 & 1/30/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION
Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1, 3 and 9-17, drawn to a process for obtaining cellulosic wet sheet, classified in class 435, subclass 101.
 - II. Claims 2 and 18-21, drawn to a process for obtaining a cellulosic membrane, classified in class 536, subclass 124.
 - III. Claim 4, drawn to a culture medium, classified in class 435, subclass 404.
 - IV. Claims 5 and 6, drawn to a fermentation tray, classified in class 264, subclass 36.18.
 - V. Claim 7, drawn to equipment used to obtain a cellulose membrane, classified in class 100, subclass 34 plus.
 - VI. Claim 8, drawn to cellulosic membrane, classified in class 424, subclass 424 plus.

The inventions are distinct, each from the other because of the following reasons: Inventions I and inventions II-VI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions have different modes of operation and different effects since a process for obtaining cellulosic wet sheet is obviously different from a process for obtaining cellulosic membrane, for example.

Inventions II and inventions III-VI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions have different modes of operation and different effects since a process for obtaining cellulosic membrane is obviously different from a culture medium, for example.

Inventions III and inventions IV-VI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have

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different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions have different designs and different effects since a culture medium is obviously different from a fermentation tray.

Inventions IV and inventions V-VI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions have different designs and different effects since a fermentation tray is obviously different from a cellulose membrane.

Inventions V and inventions VI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions have different designs and different effects since equipment used to obtain a membrane is obviously different from a cellulose membrane.

Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification;
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;
- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
- (d) the prior art applicable to one invention would not likely be applicable to another invention;
- (e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Robert Ballarini on September 19, 2008 a provisional election was made with traverse to prosecute the invention of Group II, Claims 2 and 18-21. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1, 3-17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 2 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farah (US Patent No. 4,912,049) or Iguchi et al (JP408035155A) in view of Greene (US Patent No. 3,281,951).

Applicants claim a process for obtaining cellulose membrane from the wet sheet of Claim 1, characterized by the steps (i) in one of the extremities of the wet sheet, two rectangles of an absorbent material are applied by pressure (one to each side of the wet sheet), so as to obtain a semi-rigid end that will not adhere to the drying material during

this process; (ii) this extremity is inserted in the drying equipment through an idling roller and introduced between two pairs of draining cylinders, and from there to a pair of conveyor belts, being pressed between these belts with increasing force (from 0.5 to 8 kgf/cm²) that is applied by a series of small rollers heated by the hot water that circulates in their axles; from there it goes to a pair of finishing cylinders, which may or may not be heated, so as to ensure a smooth surface for the membrane; (iii) the membrane formed by the drying of the wet sheet is forwarded to a coiling device, where the product is coiled and stands ready for sterilization and/or shipping. Claim 1 discloses obtaining the cellulose sheet via a fermentation procedure comprising the inoculum *Acetobacter xylinum*. The terms membrane and film are considered to be interchangeable in the instant rejection.

The Farah patent discloses preparation of cellulose film comprising steps of preparing a culture medium that involve seeding the medium with acetobacter *Xylinum* and removing the formed film from the culture medium for dehydration in a distended state (see abstract). The Farah patent discloses that the film thus prepared is suitable for use as an artificial skin graft, a separating membrane or artificial leather (see abstract), which is within the scope of the cellulose membrane of the instant claims.

The Iguchi et al JP publication also discloses a microorganism producing bacterium cellulose such as acetobacter *xylinum*, which is culture to form a gel-like membrane containing a bacterium cellulosic polysaccharide, wherein the membrane comprises ribbon-like microfibrils and is used in a carrier for immobilizing microorganisms to impart durability against stress destruction and deformation and as a cell leakage preventing property on the carrier (see English Language Abstract).

The instantly claimed process for obtaining a cellulosic membrane from a wet sheet differs from the process of the Farah patent and Iguchi et al publication by claiming a wet sheet drying procedure or apparatus used to dry the cellulosic wet sheet to obtain the cellulose membrane.

The Greene patent discloses a film drying process and apparatus (see title and specification), which suggests that the instantly claimed process for obtaining cellulosic membrane from a wet sheet is well known in the art.

One of ordinary skill in this art would be motivated to combine the teachings of the Farah patent and Iguchi et al publication with the teaching of the Greene patent to reject the instant claims under 35 U.S.C. 103 since each of the documents discloses preparation of cellulosic films or membranes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the film drying procedure used in the preparation of the cellulose film of the Farah patent or incorporate into the process for obtaining a cellulosic membrane of the Iguchi et al publication the film drying process and apparatus of the Greene patent in view of the recognition in the art, as evidenced by the Greene patent, that the process and apparatus thereof is effective for drying a transversely shrinkable, nonfibrous, cellulosic film while minimizing such shrinkage in order to produce a nonoriented film having substantially the same wrapping, stretch and dimensional characteristics both laterally and longitudinally.

Reference Showing the State of the Art

4. The Beaupre et al patent (US 4,995,888), which discloses a gas-permeable, essentially solvent impermeable membrane that may be selected from a group that includes cellulose acetate membrane and hydrolyzed cellulose membrane (see column 1, lines 35-40), is cited to show the state of the art.

Summary

5. Claims 2 and 18-21 are rejected; Claims 1 and 3-17 are withdrawn from consideration as being directed to non-elected inventions.

Examiner's Telephone Number, Fax Number, and Other Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Everett White whose telephone number is 571-272-0660. The examiner can normally be reached on 9:30 to 6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Everett White/

Examiner, Art Unit 1623

/Shaojia Anna Jiang, Ph.D./

Supervisory Patent Examiner, Art Unit 1623